



COMMERCIAL-GRADE ITEM DEDICATION UPDATE

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ANCIENT HISTORY

- NRC Inspection in the late 1980's identified common problems
- Pause for industry improvement
- NRC Assessments in the early 1990's
- Pilot inspections
- Numerous meetings with industry
- Public workshop in 1993
- NRC Insp Proc 38703 issued in November 1993
- Recent NUPIC Audits and NRC Inspections have identified findings in Vendor CGI Dedication





COMMERCIAL-GRADE ITEM DEDICATION

CGI DEDICATION GUIDANCE

- ANSI N 18.7-1976/R.G. 1.33 – “off the shelf” items may be similarly procured but care must be taken to assure at least equivalent performance
- EPRI NP-5652 – Guideline for the Utilization of CGIs in Nuclear Safety Related Applications (1988)
- Generic Letter 89-02 – conditionally endorsed EPRI NP-5652
- Generic Letter 91-05 – Announces pause in inspections/provides additional clarifications
- NUMARC Procurement Initiative--Basic Initiative – January 1, 1990
Comprehensive Initiative July 1, 1992
- Appendix A to IP 38703





COMMERCIAL-GRADE ITEM DEDICATION

- 10CFR50 Appendix B – Applies to all safety related structures, systems, and components (Basic Components)
- 10CFR Part 21.3 – Definitions
- Dedication – Acceptance Process by which a CGI is designated for use as basic component. Process includes the identification and verification of critical characteristics





COMMERCIAL-GRADE ITEM DEDICATION

NRC STAFF VIEW ON COMMERCIAL GRADE ITEMS (CGIs)

- Determine Safety Function
 - Design basis, parts classification
- Engineering Evaluation to Identify Design/Performance Attributes Necessary to Perform Safety Function
- Procurement Activity to Confirm Engineering Evaluation
 - e.g., CG surveys, testing





COMMERCIAL-GRADE ITEM DEDICATION

QA ISSUES IN DEDICATION

- SELECTION OF CRITICAL CHARACTERISTICS
 - Safety function
 - Graded quality
 - Failure modes
 - Reasonable assurance
 - Engineering judgment

- TRACEABILITY
 - Items purchased thru distributors



QA ISSUES IN DEDICATION

- SAMPLING
 - established heat traceability (materials)
 - established lot/batch control (items)
 - Materials/items with no lot/batch control





COMMERCIAL-GRADE ITEM DEDICATION

QA ISSUES IN DEDICATION

- COMMERCIAL GRADE SURVEYS
 - Verification of vendor controls
 - Identification of program/procedures
 - Documentation of survey results
 - Survey frequency





COMMERCIAL-GRADE ITEM DEDICATION

QA ISSUES IN DEDICATION

- ACCEPTANCE OF VENDOR CERTIFICATES
 - Verify through surveys, testing, other
 - Include distributor controls

- USE OF INDUSTRY GUIDANCE
 - Difference between NRC/EPRI definitions

